

REMARKS

Applicant appreciates the time taken by the Examiner to review Applicant's present application. This application has been carefully reviewed in light of the Official Action mailed January 16, 2009.

Interview Summary

A telephone interview was conducted on April 7, 2009 between Examiner Brett Feeney and Agent Kevin Gust. During the interview, Examiner Feeney and Agent Gust discussed proposed amendments and the cited references. Applicant appreciates the time and effort taken by Examiner Feeney to review Applicant's present application and discuss the pending claims and the cited prior art.

Claims status

Claims 1-4, 6-9, 12-17, 19, 20, 23, 24, 28, 29 and 33 were pending. Claims 4-5, 8-11, 13-16, 18-22 and 25-33 are cancelled. Claims 1-3, 6-7, 12, 17 and 23 - 24 are amended herein. Claims 34-43 are added. Support for the amendments and added claims may be found at least at paragraphs 36, 38 and 42-44. No new matter is added. Accordingly, Claims 1-3, 6-7, 12, 17, 23-24 and 34-43 remain pending. Applicant respectfully requests reconsideration and favorable action in this case.

Rejections under 35 U.S.C. § 101

Claims 1-4, 6-9, 23, 24, and 33 were rejected under 35 U.S.C. § 101. Claims 1 and 23 are amended herein. Accordingly, Applicant submits that this rejection is now moot.

Rejections under 35 U.S.C. § 103

Claims 1-4, 6-9, 12-17, 19, 20, 23, 24, 28, 29, and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,895,405 ("Choi"). The rejection is traversed. Claims 12 and 23 contain similar language as claim 1. Accordingly, traversal of the rejection will be collectively addressed as it pertains to claim 1.

Claim 1, as amended, recites:

A computer-implemented method for the optimization of a process, comprising:
providing a system comprising:

an action selection algorithm computer, comprising:

a storage medium for storing an action database containing a set of actions and
an action selection algorithm module comprising at least one action
selection algorithm; and

a first processor for executing an action selection algorithm selected from the at least one action selection algorithm; and
a customer profiling computer comprising:
a storage medium containing a customer profile database and a customer profiling module comprising at least one customer profiling algorithm;
and
a second processor for executing the at least one customer profiling algorithm;
receiving, by the customer profiling module on the customer profiling computer, information about a customer, wherein the information comprises one or more of clickstream data, information directly entered by the customer, and information acquired by an agent;
matching, by the customer profiling module on the customer profiling computer, the information about the customer to a profile stored in the customer profile database based on the customer information and one or more of a customer need and a business context;
selecting, by the action selection algorithm module on the action selection algorithm computer, an action from a set of actions associated with the profile using an action selection algorithm, wherein each action in the set of actions is a unique stimulus, wherein the set of actions comprises a plurality of alternative actions for a specific context;
presenting, by the action selection algorithm module on the action selection algorithm computer, the action to the customer associated with the profile;
receiving, by the action selection algorithm module on the action selection algorithm computer, a response to the action from the customer;
storing the response in the action selection database in the action selection algorithm computer;
repeating the selecting, presenting, receiving and storing steps for each customer of a plurality of customers;
determining a distribution of customer responses to the set of actions;
analyzing, by the action selection algorithm module, the distribution of responses to all actions of the set of actions presented to the customers associated with the profile, wherein the analysis identifies one action of the set of actions having a desired outcome; and
updating, by the action selection algorithm module, the action database based on the analysis of the distribution of responses, wherein future actions presented to customers associated with the profile are selected by the action selection algorithm module from the updated action database.

Thus, embodiments of a method for the optimization of a process may include providing a system comprising an action selection algorithm computer and a customer profiling computer. In embodiments according to claim 1, the action selection algorithm computer may include a storage medium for storing an action database containing a set of actions and at least one action selection algorithm and a first processor for executing an action selection algorithm selected from the at least one action selection algorithm. The customer profiling computer may include a storage medium containing a customer profile database and a second processor for executing a customer profiling algorithm. The method may further include receiving information about a customer. The information can include one or more of clickstream data, information directly entered by the customer, and information acquired by an agent. The method may further include matching the information about the customer to a profile stored in the customer profile database based on the customer information and one or more of a customer need and a business context, selecting an action from a set of actions using an action selection algorithm,

presenting the action to the customer associated with the profile, receiving a response to the action from the customer, storing the response to the action in the action selection database and repeating the selecting, presenting, receiving and storing steps for each customer of a plurality of customers so as to determine a distribution of customer responses to the actions. Additionally, the method may include analyzing the distribution of responses to all actions of the set of actions presented to the customers associated with the profile, wherein the analysis identifies one action of the set of actions having a desired outcome, and updating the action selection database based on the analysis of the response distribution, wherein future actions presented to customers associated with the profile are selected from the updated action database.

As an example, in a travel related call center, scripts may form the set of actions and may be stored in the action database. When a user calls the travel related call center, information about the customer may be received based on previous transactions, answers provided by the customer, or some other way. Based on the information provided by the customer, the customer may be assigned to a profile. The action selection algorithm may select a group of scripts from the total set of scripts to be presented to customers that match the profile. The scripts may be presented to different customers in the same profile to determine which script results in the highest revenue. (See, specification, para. 42.)

Choi is directed to market research, particularly to computer-assisted systems and methods for determining effectiveness of survey questions. Responses to survey question are segregated into a plurality of categories and a response distribution is determined for each of the categories. A box score and a difference score are calculated for each response distribution and used to obtain an effectiveness score for the survey question. (See, Choi, Abstract.) In order for Choi to determine the effectiveness of a survey question, Choi employs a segment-based marketing process using several techniques. (See, Choi, Col. 4, lines 14-26.) As part of the analysis, Choi describes using a Babbitt Score for calculating a survey question's effectiveness. Based on score magnitude a question is either retained, subjected to additional analysis, or eliminated. (See, Choi, Col. 5, lines 18-22.) Also as part of the analysis, Choi describes using best fit clustering to maximize the "fit" of the weighted number of questions. Using this method, Choi separates customers into segments and then Choi may randomly change the segmentation or reassign segment membership for each data observation to improve the fit. (See, Choi, Col. 9, lines 23-42.) Choi describes using champion/challenger clustering refinement for making segmentation scheme evaluation and refinement more systematic, efficient, and commercially valuable. (See, Choi, Col. 10, lines 4-9.) Choi teaches

composition analysis to evaluate the quality of each segment member. (See, Choi, Col. 11, line 65 – Col. 12, line 1.) Choi describes using a segment-on-the-fly to improve accuracy and coverage, behavioral segment scoring to rapidly type individuals into segments, panel analysis to develop segmentation structures, and the overall segment-based marketing process to redesign marketing strategies. (See, Choi, Col. 14, lines 46-49, Col. 16, lines 29-34, Col. 17, lines 50-52, and Col. 19, lines 10-15.)

In the rejection, the Examiner states that Choi discloses analyzing a distribution of responses to all actions of a set of actions. Applicant respectfully submits that the techniques used by Choi are generally geared toward analyzing the customer as opposed to analyzing some characteristic about the product being offered to the customer. Choi begins with data collection and then evaluates the data to determine whether the response patterns for generated clusters are statistically different from the response pattern of the overall population of respondents. (See, Choi, Col. 2, lines 47-48 and Col. 3, lines 17-20.) In doing so, Choi is focusing on ensuring that a response distribution of survey questions posed to a cluster of customers is proportional to the expected response distribution for the entire population. Choi also calculates a Babbitt score to identify survey questions that are the most discriminating. (See, Choi, Col. 4, lines 56-65.) Furthermore, composition analysis may be used to eliminate from the research process those consumers who do not exemplify their assigned segments. (See, Choi, Col. 11, lines 18-28.) In fact, Choi teaches removing people who “randomly” answer surveys from the analytic population. (See, Choi, Col. 12, lines 10-11.) Thus it appears as though the analysis taught by Choi is concerned with analyzing the customer population and is particularly focused on analyzing the people who are answering the survey questions.

In contrast to analyzing the customers, embodiments disclosed by Applicant may analyze the product or service being offered to the customers. Thus, a customer having selected attributes may be associated with a customer profile. A specific action set may be associated with the profile of a group of customers. An action from the action set for a given segment may be selected based on an action selection algorithm and presented to the group of customers. The results may be analyzed to determine which actions are most effective for the group. (See, specification, para. 40.) For example, the results may allow a seller of a product to know which groups of customers respond to which amenities, which order of presentation, etc. (See, specification, paras. 25 and 44.) Advantageously, instead of using survey questions to identify a group of customers to whom a product could be marketed, embodiments disclosed by Applicant analyze the response distribution for a set of actions presented to a group of customers to determine how a product could be marketed more effectively for a selected need

or for a given context (e.g., maximize profit, maximize revenue, etc). Furthermore, as business goals change, the analysis of the response distribution may be changed.

For at least the foregoing reasons, Applicant respectfully submits that Choi fails to disclose one or more of receiving information about a customer, matching the information about the customer to a profile stored in the customer profile database based on the customer information and one or more of a customer need and a business context, selecting an action from a set of actions using an action selection algorithm, presenting the action to the customer associated with the profile, receiving a response to the action from the customer, storing the response in a database, repeating the selecting, presenting, receiving and storing steps for each response received from a plurality of customers, determining a distribution of customer responses to the set of actions, analyzing the distribution of responses to all actions of the set of actions presented to the customers associated with the profile to identify one action of the set of actions having a desired outcome, and updating the action database such that future actions presented to customers associated with the profile are selected by the action selection algorithm from the updated action database. Accordingly, withdrawal of this rejection is requested.

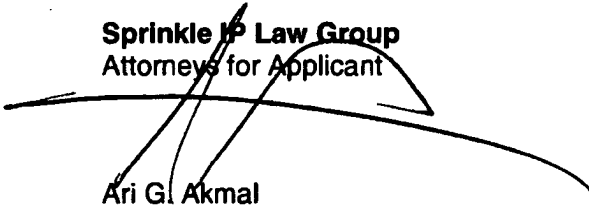
Conclusion

Applicant has now made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include an acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 1-3, 6-7, 12, 17, 23-24 and 34-41. The Examiner is invited to telephone the undersigned at the number listed below for prompt action in the event any issues remain.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

Sprinkle IP Law Group
Attorneys for Applicant



Ari G. Akmal
Reg. No. 51,388

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1301 W. 25th Street, Suite 408
Austin, TX 78705
Tel. (512) 637-9220
Fax. (512) 371-9088